



D-1212

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In re Application of	)	
<b>Randall Jenkins, et al.</b>	)	
	)	
Application No.: 10/788,917	)	Art Unit 2876
	)	
Confirmation No.: 7493	)	
	)	
Filed: <b>February 27, 2004</b>	)	Patent Examiner
	)	Steve Paik
	)	
Title: <b>Currency Cassette Access</b>	)	
<b>Based On Facial Recognition</b>	)	

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Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**SUPPLEMENTAL BRIEF OF APPELLANTS  
PURSUANT TO 37 C.F.R. § 41.37**

Sir:

The Appellants hereby submit their Supplemental Appeal Brief pursuant to 37 C.F.R. § 41.37 concerning the above-referenced Application. This Supplemental Appeal Brief is in response to the Office Action dated January 25, 2006, which reopened prosecution.

(i)

**REAL PARTY IN INTEREST**

The Assignee of all right, title and interest to the above-referenced Application is  
Diebold, Incorporated, an Ohio corporation.

**(ii)**

**RELATED APPEALS AND INTERFERENCES**

Appellants, Appellants' legal representative, and assignee believe that there are no related appeals or interferences pertaining to this matter.

(iii)

### **STATUS OF CLAIMS**

Claims 1 and 45-70 are pending in the Application.

Claims rejected: 1, 45-48, 50-58, 60-65, and 67-70

Claims allowed: 49, 59, and 66 (of which further discussion is not needed)

Claims confirmed: none

Claims withdrawn: none

Claim objected to: none

Claims canceled: 2-44

Appellants appeal the rejections of claims 1, 45-48, 50-58, 60-65, and 67-70, inclusive.

These rejections were in the Office Action (“Action”) dated January 25, 2006, which reopened prosecution following the (first) Appeal Brief filed November 7, 2005.

(iv)

## **STATUS OF AMENDMENTS**

The Action dated January 25, 2006 was not made final. Thus, no amendments to the claims were requested to be admitted after a final rejection.

Appellants' Appeal Brief filed November 7, 2005 is incorporated herein by reference.

### Additional Comment

The Action (on page 2, first paragraph) indicates that the reason prosecution was reopened was because of "Applicant's request for reconsideration of the finality of the rejection of the last Office action". The Office's provided reason is unclear. The file history shows that there was no request for reconsideration (or for entry of an after-final amendment) in response to the final rejection of May 20, 2005.

## **(v) SUMMARY OF CLAIMED SUBJECT MATTER**

*Concise explanations of exemplary forms of the claimed invention:*

### With respect to independent claim 1

An exemplary form of the invention is directed to an apparatus. For example, note Figure 39 (e.g., Specification page 72, line 7 to page 76, line 12). The apparatus includes a security system (360). The system can restrict access to the interior of an automated banking machine component (e.g., page 73, lines 2-4; currency cassette 372). The system comprises a database that includes data representative of images of individuals authorized access to the interior of the component (e.g., page 74, lines 4-10). The system also includes a camera (e.g., 366) that can capture an image of an individual (e.g., page 72, lines 19-22). The system further includes image recognition software that can determine whether a captured image of an individual corresponds to an individual represented in the database (e.g., page 73, lines 4-5 and 11-15). The system includes at least one processor, operatively connected to the database and the camera, that can use the recognition software (e.g., page 73, lines 5-6).

### With respect to independent claim 61

Another exemplary form of the invention is directed to a method. Support in the disclosure for similar claim language has previously been provided. The method includes capturing an image of an individual with a camera (e.g., 366). The method further includes determining whether the captured image corresponds to an individual represented in a database (e.g., page 73, lines 4-5 and 11-15). The method also includes, responsive to a positive determination, granting a level of access to the interior of an automated banking machine component (e.g., page 72, lines 8-12; page 73, lines 14-15).

With respect to independent claim 69

Another exemplary form of the invention is directed to an apparatus. Support in the disclosure for similar claim language has previously been provided. The apparatus includes a security system. The security system is operative to restrict access to the interior of an ATM currency container (e.g., 372; page 73, lines 1-5). The security system includes a database that includes data representative of facial images corresponding to respective individuals authorized to access the interior of the ATM currency container (e.g., page 73, lines 5-6). The security system includes a camera (e.g., 366) that is operative to capture an image of an individual. The security system includes facial recognition software (e.g., page 73, lines 4-5) that is operative to determine whether a captured facial image of an individual corresponds to an individual represented in the database. The security system includes at least one processor that is in operative connection with the database and the camera, is operative to use the software, and is operative to grant access to the interior of the ATM currency container responsive to a positive determination (e.g., page 72, lines 8-12; page 73, lines 5-6 and 14-15).

With respect to independent claim 70

Another exemplary form of the invention is directed to a method. Support in the disclosure for similar claim language has previously been provided. The method includes capturing image data corresponding to an image of an individual with a camera (e.g., 366). The method further includes determining through operation of at least one processor whether the image data corresponds to data associated with an individual in a database (e.g., page 73, lines 4-5 and 11-15). The method also includes, responsive to a positive determination, granting access to an interior area of an automated banking machine, where the interior area includes therein

stored currency that is dispensed to machine users during financial transactions conducted through operation of the machine (e.g., page 72, lines 8-12; page 73, lines 14-15).



**(vi) GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL**

- 1). Whether claims 1, 45-46, 50-52, 56, 60-65, and 67-70 are unpatentable pursuant to 35 U.S.C. § 103(a) over Zerman (US 2002/71244) in view of Oda (US 6,591,001).
- 2). Whether claims 47-48 and 57-58 are unpatentable pursuant to 35 U.S.C. § 103(a) over Zerman in view of Oda and further in view of Coutts (US 5,563,393).
- 3). Whether claims 53-55 are unpatentable pursuant to 35 U.S.C. § 103(a) over Zerman in view of Oda and further in view of Heath (US 5,451,757).

(vii)

## ARGUMENT

### The Applicable Legal Standards

Before a claim may be rejected on the basis of obviousness pursuant to 35 U.S.C. § 103, the Patent Office bears the burden of establishing that all the recited features of the claim are known in the prior art. This is known as *prima facie* obviousness. To establish *prima facie* obviousness, it must be shown that all the elements and relationships recited in the claim are known in the prior art. If the Office does not produce a *prima facie* case, then the Appellants are under no obligation to submit evidence of nonobviousness. MPEP § 2142.

The teaching, suggestion, or motivation to combine the features in prior art references must be clearly and particularly identified in such prior art to support a rejection on the basis of obviousness. It is not sufficient to offer a broad range of sources and make conclusory statements. *In re Dembiczak*, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999).

Even if all of the features recited in the claim are known in the prior art, it is still not proper to reject a claim on the basis of obviousness unless there is a specific teaching, suggestion, or motivation in the prior art to produce the claimed combination. *Panduit Corp. v. Denison Mfg. Co.*, 810 F.2d 1561, 1568, 1 USPQ2d 1593 (Fed. Cir. 1987). *In re Newell*, 891 F.2d 899, 901, 902, 13 USPQ2d 1248, 1250 (Fed. Cir. 1989).

Evidence of record must teach or suggest the recited features. An assertion of knowledge and common sense not based on any evidence in the record lacks substantial evidence support. *In re Zurko*, 258 F.3d 1379, 59 USPQ2d 1693 (Fed. Cir. 2001). Patentability determination must be based on evidence of record. *In re Lee*, 277 F.3d 1338, 61 USPQ2d 1430 (Fed. Cir. 2002).

It is respectfully submitted that the Action requiring appeal does not meet these burdens.

**The 35 U.S.C. § 103(a) Rejections are legally improper**

**The rejections are devoid of any teaching, suggestion, or motivation**

Appellants traverse the rejections on the grounds that Appellants' claims recite features, relationships, and steps which are neither disclosed nor suggested in the prior art, and because there is no teaching, suggestion, or motivation cited so as to produce Appellants' invention. The features, relationships, and steps recited in Appellants' claims patentably distinguish over the applied references.

**The rejections are based on hindsight reconstruction**

The only suggestion for the recited features, relationships, and steps is found in Appellants' own novel disclosure. It follows that the rejections are based solely on hindsight reconstruction of Appellants' claimed invention, which is legally impermissible and does not constitute a valid basis for a finding of obviousness. *In re Fritch*, 972 F.2d 1260, 23 USPQ2d 1780 (Fed. Cir. 1992).

**The Office has not established a *prima facie* showing of obviousness**

The Office has not established a *prima facie* showing of obviousness. The rejections are not supported by concrete evidence of record. *In re Zurko*, supra. *In re Lee*, supra. It would not have been obvious to one having ordinary skill in the art to have modified the references as alleged to have produced the recited invention. Thus, Appellants respectfully submit the rejections are improper and should be reversed.

Note regarding recited claim language

For reasons of brevity, claim language may be referred to herein in a shortened or generalized version. For example, language such as “at least one” may simply be referred to as “a”. Any shortened/generalized statement herein is not to limit any of the mentioned claims in any manner. Please refer to the claim for the exact claim language.

Zerman

Zerman is directed to a miniature ATM that is mounted to and through a wall. Zerman conventionally distinguishes a cardholder (customer) using a PIN (numbered paragraph 0036) from an ATM owner using a password (numbered paragraph 0034). The ATM (10) includes a front customer side (16) and a rear owner side (18). The customer’s keypad (22) is on the front exterior of the ATM (Zerman’s paragraph 0023). The customer side (16) has a card reader slot (32)(paragraph 0026). The customer is required to use a personal identification number (PIN) (paragraph 0036).

The owner’s keypad (38) is in the interior of the ATM (paragraph 0027). A rear door (40) has to be open in order to access the owner’s keypad (38). The door (40) is opened via a handle (41). Although no specific teaching is provided, it is apparent from Figures 4 and 5 of Zerman that the door (40) has a conventional lock (e.g., key lock) associated therewith. After the door (40) is opened, then the owner’s keypad (38) is available for operation to change passwords, input other data, and program the ATM (paragraph 0034). Having the door (40) open also enables the owner to access the cash dispenser (52) and the printer (50).

## Oda

Oda is directed to an iris image input device. A special mirror (62) reflects near infrared light yet permits passage of visible light (e.g., col. 3, lines 14-21). During iris image input (e.g., col. 4, line 38 to col. 5, line 15) a user can see a display screen (3, 5) through the mirror. While the user is looking through the mirror at the screen, a camera (60) captures the user's reflected iris image which in turn is displayed on the screen. The arrangement enables the user to see and focus their iris image while it is being captured and displayed on the screen. That is, the user can focus their displayed iris while watching it (being focused) on the screen. The displayed focus of the inputted iris image can be adjusted by the user moving their face relative to the mirror. After the displayed iris image has been adequately focused, the user can push an enter key (14) to cause storage thereof.

### **The Claims Are Not Obvious Over Zerman in view of Oda**

Claims 1, 45-46 50-52, 56, 60-65, and 67-70 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Zerman in view of Oda.

The Action alleges that Zerman teaches an ATM comprising a cash dispenser (52), cash cassette (54), modem (56) printer, distribution board, and motherboard. The Office relies on an unsupported allegation that “a security system using a password or personal identification number is not as secure as a security system using a biometric data of a user/operator or both the biometric data and a password”.

The Action (page 3, first line) admits that Zerman is silent about a security system. The Action relies upon Oda for allegedly teaching a security management device for an ATM, including a camera (60), a database (of stored iris patterns of authorized operators of an ATM), and image recognition software (security control software; col. 4, lines 23-28).

The Action then alleges that it would have been obvious to "employ an iris photography apparatus in addition to the ATM of Zerman due to the fact that more improved and secured access control of a security area can be accomplished for the purposes of improving the levels of security by selectively granting the access to the highly secured area".

A brief generalized summary of arguments against the rejections

Appellants' claims are directed to restricting/granting access to the *interior* of an automated banking machine (or the interior of a machine component). Zerman is directed to the ATM owner conventionally accessing the interior of an ATM (10) to perform maintenance operations. The ATM is accessed at the secure rear side (18) thereof (which is not publically approachable). The ATM's rear side is the side opposite the front customer side (which is publically approachable). The ATM interior can be accessed by the owner through a door (40), which has a conventional mechanical key lock. ATM maintenance operations (e.g., adding cash) can be carried out through the rear of an ATM so they do not prevent (front side) customer usage of the ATM. The Action admits that Zerman does not teach or suggest the recited security system features enabling interior access.

Oda is directed to an ATM customer (not the ATM owner) using an ATM (190) to perform a transaction. Oda does not teach providing customer access to the interior of the ATM. Nor would it have been obvious to one having ordinary skill in the art to grant a customer access

to an ATM interior. Oda teaches that iris recognition can be performed for identification of the ATM customer (col. 8, line 59 to col. 9, line 9). ATMs typically require input of a PIN from the ATM customer for (electronic) identification verification. Thus, at best, Oda (although not specifically disclosed) may be permitting ATM *customers* to operate an ATM via iris recognition, without input of a PIN.

Regardless of what Oda actually discloses, Oda (like Zerman, as admitted by the Office) is not directed to the recited feature of restricting/granting *interior* access. Zerman is directed to an owner located at the secured rear side of an ATM. Conversely, Oda is directed to a customer located at the publicly-accessible front side of an ATM. Neither reference teaches nor suggests image-based access to the *interior* of an automated banking machine (or machine component). Thus, the Office has not established a *prima facie* case of obviousness.

Furthermore, it would not have been obvious to have combined the references as alleged to have produced the recited invention. Oda's teaching directed to a *customer* (at the front side of an ATM) is incompatible with Zerman's teaching directed to an ATM *owner* (at the rear side of an ATM). Nor would it have been obvious to have enabled ATM customers access to the ATM interior. One having ordinary skill in the art (and the ATM-using community at large) understands that ATM *customers* are not granted access to the *interior* of the ATM.

Even if it were somehow possible (which it isn't) for the references to have been combined as alleged, the combination still would not have resulted in the recited invention. At best, the alleged modification of Zerman with the teaching of Oda would have resulted in permitting an ATM customer in Zerman to operate the ATM without using a PIN. The "interior" feature of the recited claims would still be absent.

For these (and later additional) reasons, the rejections should be reversed. More detailed arguments regarding specific claims and language therein follow.

### **Claim 1**

Claim 1 recites an apparatus including “a security system” (which system is almost all of the claim elements). As previously discussed, the Action admits that Zerman is silent about the recited security system. That is, the Action admits that Zerman teaches almost none of the elements recited in the claim.

In Zerman, an owner (not a customer) can access the interior of ATM (10). However, Zerman is not directed to restricting access to the interior of the ATM via a security system including image recognition software. Nor does Zerman use or need image recognition software to enable the owner to access the machine interior. Conversely, access to the interior of Zerman’s ATM (10) (and the rear keypad 38 therein) is via a conventional key lock in a handle (41) of a door (40) (Zerman’s paragraph 0027). The accessing of the ATM interior (by the owner) is not image recognition dependent.

The ATM owner in Zerman can access the ATM interior to change passwords, input other data, and program the ATM (paragraph 0034). However, use of the password can occur only after the door (40) has first been opened (and the ATM interior already accessed). That is, use of a password in Zerman is not related to accessing the ATM interior via opening the door (40). Thus, Zerman does not teach or suggest a security system that can “restrict access to the *interior*,” especially where the security system includes the recited database, camera, image recognition software, and processor.



Furthermore, Zerman teaches that it is only the *owner* who has access to the ATM interior. Zerman teaches away from providing a sole owner with a multi-user security system. It would not have been obvious to one having ordinary skill in the art to have provided a multi-user security system for a single person (owner). Nor would it have been obvious to one having ordinary skill in the art to (design or modify an ATM to) let a *customer* access the interior of an ATM.

The Action (at page 3) alleges that Zerman's use of a password is not as secure as using biometric data. The Appellants respectfully disagree. The Office has presented no evidence to support its allegation, in spite of ample time to do so. One having ordinary skill in the art would recognize that although biometrics may be convenient, a password (unlike a fixed biometric feature) has the additional security feature of being able to be easily and quickly changed. Thus, the Office's reason for attempting to substitute Zerman's password with biometric data is not reasonable or valid.

Regardless of the Office's unreasonable attempt to modify Zerman, use of either a password or biometric data in Zerman would occur *after* the ATM interior was already accessed (as previously discussed). That is, interior ATM access in Zerman would not be dependent on either a password or biometric data. It follows that even if Zerman had the alleged biometric data (and it was captured image data), authorized access to Zerman's ATM interior still would not be image dependent.

Appellants respectfully disagree with the Office's interpretation and application of the Oda reference. Oda cannot alleviate the admitted (and additionally noted) deficiencies of Zerman as it does not teach or suggest the recited features which are not found in Zerman.

As previously discussed, Oda teaches that iris recognition can be performed for identification of a user (customer) of an ATM (190). Oda is directed to recognition of the ATM customer. That is, biometric usage in Oda is for a *customer*, not the ATM owner. Zerman distinguishes an ATM customer (numbered paragraph 0036) from the ATM owner (numbered paragraph 0034). In Zerman, an ATM customer uses a PIN (paragraph 0036) whereas an ATM owner uses a key (paragraph 0034). Zerman also distinguishes an ATM customer from an ATM owner by the ATM side that is used. Zerman's ATM (10) is mounted through a wall (12) (paragraph 0021). As is conventional, in Zerman (paragraph 0031) the ATM customers use the front side (16) of the ATM, whereas the ATM owner uses the rear side (18) of the ATM (10). A rear door (40) enables the owner to access the ATM interior.

As previously discussed, Zerman's ATM (10) has a front customer side (16) separated by a wall (12) from a rear owner side (18). Oda's teaching is for an ATM *customer*. It follows that Oda's (front side) teaching for an ATM *customer* is not applicable to Zerman's (rear side) teaching for an ATM *owner*. The rejection has not established a link between a front side customer transaction operation in Oda and a rear side ATM owner maintenance operation in Zerman. Nor is there an operational link between the two sides. The rejection is based on mere assertions. Even if it were somehow possible for Oda's customer teaching to be germane to Zerman (which it is not), it would be limited to the front (customer) side of Zerman's ATM (i.e., the ATM side that does *not* permit interior access to the ATM).

Oda does not teach or suggest a security system with the ability to restrict access to the *interior* of an automated banking machine (e.g., ATM) component. Conventional customer operation of an ATM for performing a transaction in Oda (and Zerman) is well known. This

conventional customer operation does not involve the customer accessing the interior of the ATM. One having ordinary skill in the art would recognize that a customer operating an ATM in Oda (and Zerman) is a far cry from someone accessing the *interior* of the ATM. Where does Oda (or Zerman) permit a customer to access an ATM interior? Oda does not teach or suggest authorizing access to an ATM's interior to anyone, especially via a security system using image recognition.

Nor does Oda teach or suggest the recited database. Oda (like Zerman) does not discuss a database directed to "individuals authorized access to the *interior*". Further, where does Oda teach a database that "*includes data* representative of images of individuals authorized access to the *interior* of the automated banking machine component"? Customer iris pattern data in Oda is a far cry from data that represents images of individuals having authorization to access the interior of an ATM component.

Furthermore, where (i.e., page and lines) does Oda specifically teach "software", especially image recognition software that can determine whether a captured image of an individual corresponds to an individual authorized access to the interior of the automated banking machine component? The relied upon security control software at col. 4, lines 23-28 of Oda is not related in any way whatsoever to an individual authorized access to the interior of Oda's ATM (190).

The Action is silent as to how Zerman's ATM could have been structurally modified to have produced the recited invention. Zerman is directed to and desires a miniature ATM. It would not have been obvious to have modified (and added to) Zerman's suspended *miniature*

ATM, as alleged by the Office. Zerman's desire for a *miniature* ATM teaches against adding additional structure thereto.

Furthermore, there is no teaching, suggestion, or need for adding a camera onto the rear (owner's) side (18) of Zerman's ATM. Zerman's secure wall (12), at which the ATM's rear portion (18) is located, already provides the desired security to the ATM owner (paragraph 0004). In Zerman, the ATM owner accesses the rear side of the ATM "from inside a cashier's cage" (paragraph 0004). Zerman does not require or need a camera/image recognition software to enable the owner to (first) go inside the cashier's cage or to (further) go inside the ATM's interior. Zerman's cage, in which the rear side of the ATM is within, appears to contain stored cash for ATM usage, and thus the cage is likely highly secured. Thus, any additional security would be made to the cage not to the rear side of the ATM. Oda (like Zerman) also does not teach or suggest having a camera on the rear side of an ATM. The references do not teach or suggest using camera/image recognition software with an ATM to enable interior access thereof.

The relied upon references, taken alone or in combination, do not teach or suggest the recited apparatus of claim 1. The Office has not presented any factual evidence of record that the relied upon references teach or suggest the recited features. The Action's assertions are not based on any evidence in the record. *In re Zurko*, supra. *In re Lee*, supra. The Office has not established a *prima facie* case of obviousness.

The Action is also devoid of any teaching, suggestion, or motivation for applying Oda's teaching, which is directed to a *customer*, to Zerman's teaching, which is directed to an ATM *owner*. The teachings are non analogous and incompatible. Even if it were somehow possible

(which it is not) for the references to be combined as alleged, the combination still would not have resulted in the claimed invention.

At best, the combined teachings would merely permit an ATM *customer* in Zerman to operate the ATM without using a PIN. The references, taken alone or in combination, still would not teach or suggest the inclusion of an image-based security system in Zerman with the ability to determine whether a captured image of an individual corresponds to an individual authorized to access the interior of Zerman's ATM. The combined references would not have provided a security system that can restrict/allow an individual access to the interior of an automated banking machine component by using image recognition. Neither reference teaches nor suggests image-based access to the *interior* of an automated banking machine component. It follows that neither Zerman nor Oda, taken alone or in combination, teach or suggest the recited apparatus.

The attempts to combine the alleged teachings are clearly attempts at hindsight reconstruction of the claimed invention, which is legally impermissible and does not constitute a valid basis for a finding of obviousness. *In re Fritch*, supra. The rejections lack the necessary evidence and rationale, and are based on knowledge gleaned only from Appellants' disclosure.

Appellants respectfully submit that they have provided sufficient reasons to refute the Office's allegation of *prima facie* obviousness. Thus, Appellants further respectfully submit that the rejection of claim 1 is improper and should be reversed.

#### **Claim 45**

The references, taken alone or in combination, further do not teach or suggest a security system with the ability to determine whether a captured image of an individual corresponds to an individual authorized to access the interior of a security container of an automated banking

machine. The accessing of Zerman's cash cassette (54) is not image dependent. The Office has not established a *prima facie* showing of obviousness.

**Claim 46**

Claim 46 depends from claim 45/1. The combined references further do not teach or suggest the ability to determine whether a captured image of an individual corresponds to an individual authorized to access the interior of a currency cassette of an automated banking machine. The Office has not established a *prima facie* showing of obviousness.

**Claim 50**

Claim 50 depends from claim 45/1. The combined references further do not teach or suggest an automated banking machine including a security system with the ability to determine whether a captured image of an individual corresponds to an individual authorized to access the interior of a security container of the machine. The Office has not established a *prima facie* showing of obviousness.

**Claim 51**

The combined references further do not teach or suggest a security system including facial recognition software that can determine whether a captured facial image of an individual corresponds to an individual represented in a (authorization) database, nor a processor that can grant access to the component interior responsive to a positive determination. The Office has not established a *prima facie* showing of obviousness.

### **Claim 52**

Claim 52 depends from claim 51/1. The combined references further do not teach or suggest that the processor can also cause a captured facial image to be stored in a file. The Office has not established a *prima facie* showing of obviousness.

### **Claim 56**

The combined references further do not teach or suggest a security system with the ability to determine whether a captured image of an individual corresponds to an individual authorized to access the interior of a currency cassette. The Office has not established a *prima facie* showing of obviousness.

### **Claim 60**

Claim 60 depends from claim 56/1. The Action is silent as to where the references teach or suggest a cassette work station, especially a cassette work station that includes the recited security system. The Office has not established a *prima facie* showing of obviousness.

### **Claim 61**

For reasons of brevity, Appellants' previous remarks regarding the patentability of claim 1 are incorporated herein by reference. For reasons already discussed, neither Zerman nor Oda, taken alone or in combination, teach or suggest the recited method.

As previously discussed (e.g., claim 1 remarks), neither reference teaches nor suggests image-based access to the interior of an automated banking machine component. Additionally, even if it were somehow possible (which it is not) for the references to have been combined as alleged, the result still would not teach or suggest granting a level of access to the interior of an automated banking machine component responsive to determining that a camera-captured image

of an individual corresponds to an individual represented in a database. The Office has not established a *prima facie* showing of obviousness. It would not have been obvious to have combined the references as alleged to have produced the recited invention.

#### **Claim 62**

The combined references further do not teach or suggest capturing a facial image of an individual, and granting a level of access to the interior of an automated banking machine component responsive to determining that the captured facial image corresponds to an individual represented in a database. The Office has not established a *prima facie* showing of obviousness.

#### **Claim 63**

Claim 63 depends from claim 62/61. The combined references further do not teach or suggest capturing a facial image of an individual, and granting a level of access to the interior of an automated banking machine component responsive to determining (using facial recognition software) that the captured facial image corresponds to an individual represented in a database. The Office has not established a *prima facie* showing of obviousness

#### **Claim 64**

Claim 64 depends from claim 63/62/61. The combined references further do not teach or suggest capturing a facial image of an individual, and granting a level of access to the interior of an automated banking machine security container (including at least one currency cassette) responsive to determining (using facial recognition software) that the captured facial image corresponds to an individual represented in a database. The Office has not established a *prima facie* showing of obviousness.



#### **Claim 65**

Claim 65 depends from claim 64/63/62/61. The combined references further do not teach or suggest capturing a facial image of an individual, and granting direct access to the interior of an automated banking machine security container (including at least one currency cassette) responsive to determining (using facial recognition software) that the captured facial image corresponds to an individual represented in a database. The Office has not established a *prima facie* showing of obviousness.

#### **Claim 67**

The combined references further do not teach or suggest granting a level of access to the interior of an automated banking machine security container responsive to using a processor to determine that a captured image corresponds to an individual represented in a database. The Office has not established a *prima facie* showing of obviousness.

#### **Claim 68**

Claim 68 depends from claim 67/61. The combined references further do not teach or suggest granting a level of access to the interior of an automated banking machine currency cassette responsive to using a processor to determine that a captured image corresponds to an individual represented in a database. A *prima facie* case of obviousness has not been established.

#### **Claim 69**

For reasons of brevity, Appellants' previous remarks regarding the patentability of claim 1 are incorporated herein by reference. For reasons already discussed, neither Zerman nor Oda, taken alone or in combination, teach or suggest the recited apparatus of claim 69.

Additionally, the references (taken alone or in combination) also do not teach or suggest a security system that can restrict/grant an individual access to the interior of an ATM currency container by using facial recognition. Neither reference teaches nor suggests having access to the interior of an ATM currency container based on image correspondence. The Office has not established a *prima facie* showing of obviousness. It would not have been obvious to have combined the references as alleged to have produced the recited invention.

#### **Claim 70**

For reasons of brevity, Appellants' previous remarks regarding the patentability of claims 1 and 69 are incorporated herein by reference. For reasons already discussed, neither Zerman nor Oda, taken alone or in combination, teach or suggest the recited method.

As previously discussed, neither reference teaches nor suggests image-based access to the interior of an automated banking machine. Zerman's interior ATM access is at best key-based. Further, Zerman's use of a password is *after* interior access is already achieved. Thus, interior access cannot be password (or image) dependent. Zerman's teaching is directed to the owner side of an ATM, whereas Oda's teaching is directed to the opposite customer side. Oda provides no access to currency in an interior of an automated banking machine.

Additionally, the combined references (if somehow possible) still would not teach or suggest granting access to an interior area (including stored currency) of an automated banking machine responsive to determining that camera-captured image data for an individual corresponds to an individual's data represented in a database. The Office has not established a *prima facie* showing of obviousness. It would not have been obvious to one having ordinary skill in the art to have combined the references as alleged to have produced the recited invention.

**The Claims Are Not Obvious Over  
Zerman in view of Oda and Coutts**

Claims 47-48 and 57-58 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Zerman in view of Oda and Coutts.

The Action (on page 4) admits that Zerman/Oda does not teach or suggest the recited automated banking machine security container including a lock control device. As best understood, the Action relies upon Coutts' currency cassette sensors (42, 44) as a lock control device to provide a more "secured access control" to the cassette interior.

Coutts is non analogous art. Nor does Coutts teach or suggest the recited features admitted by the Office as absent in Zerman/Oda. The relied upon sensors (42, 44) in Coutts are in the ATM (col. 4, line 1). Coutts' conventional cassette present sensor (42) enables an ATM to detect the presence of the currency cassette therein. Coutts' conventional currency low sensor (44) enables an ATM to know whether a low currency level as been reached in the cassette. Typically, such sensors receive physical contact from a component of the cassette. For example, a component representing a cassette's currency level may be moved (e.g., via spring loading) to contact a currency low sensor when the currency level reaches a predetermined low level.

The relied upon sensors (42, 44) in Coutts do not relate to controlling a lock. Nor do the Coutts' sensors (42, 44) relate to controlling access to any container interior. At best, the sensors (42, 44) inform the ATM of the presence/condition of a cassette. Where in Coutts does a currency cassette have a lock control device, especially a device that can control access to the cassette's interior? Coutts sensors (42, 44) are in the ATM (col. 4, line 1). Where in Coutts is a

currency cassette lock control device operatively connected to a processor? It follows that the relied upon sensors (42, 44) in Coutts cannot constitute Appellants' recited lock control device. The Office has not established a *prima facie* showing of obviousness. Even if it were somehow possible (which it is not) for the references to have been combined as alleged, the result still would not teach or suggest the recited invention.

#### **Claim 47**

Claim 47 depends from claim 46/45/1. The combined references further do not teach or suggest an automated banking machine security container including a lock control device, especially where the lock control device controls access to the security container interior. Nor do the combined references teach or suggest that the lock control device is also operatively connected to the processor. As previously discussed, the relied upon sensors (42, 44) in Coutts do not constitute the recited lock control device. The Office has not established a *prima facie* showing of obviousness.

#### **Claim 48**

Claim 48 depends from claim 47/46/45/1. The combined references further do not teach or suggest that the recited processor (which is operatively connected to the recited lock control device) is operative to grant access to the interior of the security container responsive to a positive determination that the captured image of the individual corresponds to an individual represented in the (authorization) database. Again, the relied upon sensors (42, 44) in Coutts are non analogous to the recited subject matter. The Office has not established a *prima facie* showing of obviousness.

### **Claim 57**

Claim 57 depends from claim 56/1. For reasons of brevity, Appellants' previous remarks regarding the patentability of claim 47 are incorporated herein by reference. As previously discussed, the combined references further do not teach or suggest a currency cassette that includes a lock control device, especially where access to the interior of the currency cassette is controlled by the lock control device. Nor do the combined references teach or suggest that the lock control device is also operatively connected to the processor. As previously discussed, the relied upon sensors (42, 44) in Coutts do not constitute the recited lock control device. The Office has not established a *prima facie* showing of obviousness.

### **Claim 58**

Claim 58 depends from claim 57/56/1. For reasons of brevity, Appellants' previous remarks regarding the patentability of claim 48 are incorporated herein by reference. As previously discussed, the combined references further do not teach or suggest that the recited processor (which is operatively connected to the recited currency cassette lock control device) is operative to grant access to the interior of the currency cassette responsive to a positive determination that the captured image of the individual corresponds to an individual represented in the (authorization) database. The Office has not established a *prima facie* showing of obviousness.

**The Claims Are Not Obvious Over  
Zerman in view of Oda and Heath**

Claims 53-55 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Zerman in view of Oda and Heath.

The Action (on page 5) admits that Zerman/Oda does not teach or suggest the structural ability for “storing the data [sic] and time of attempted and granted access to the interior of the component and using a serial number for further authentication”. The Action relies upon Heath for the features admitted by the Office as absent in Zerman/Oda.

**Claim 53**

Claim 53 depends from claim 52/51/1. The combined references further do not teach or suggest a security system processor (operatively connected to a database and a camera) that can cause a captured facial image along with the date and time of an attempted access to the interior of an automated banking machine component, to be stored in a file. Heath does not teach or suggest storing in a file each of a captured facial image, the date of an attempted access, and the time of the attempted access. Where does Heath store any image, especially a facial image together with the date and time of an attempted access to an automated banking machine component interior? It follows that Heath cannot alleviate the admitted deficiencies in Zerman/Oda. Nor has a *prima facie* showing of obviousness been established.

**Claim 54**

Claim 54 depends from claim 52/51/1. The combined references further do not teach or suggest a security system processor (operatively connected to a database and a camera) that can

cause the storage in a file of a captured facial image along with a date and time of a granted access to the interior of the component. Heath does not teach or suggest storing in a file each of a captured facial image, the date of an granted access, and the time of the attempted granted. The Office has not established a *prima facie* showing of obviousness.

#### **Claim 55**

Claim 55 depends from claim 54/52/51/1. The combined references further do not teach or suggest a security system processor (operatively connected to a database and a camera) that can cause each of a captured facial image, the date of a granted access, the time of the granted access, and a cassette serial number to be stored in a file. Again, the Office has not established a *prima facie* showing of obviousness.

## CONCLUSION

Each of Appellants' pending claims specifically recites features and relationships that are neither disclosed nor suggested in any of the applied prior art. Furthermore, the applied prior art is devoid of any teaching, suggestion, or motivation for combining features of the applied prior art so as to produce the recited invention. For these reasons it is respectfully submitted that all the pending claims are allowable.

Respectfully submitted,



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## CLAIMS APPENDIX

1. An apparatus including:

a security system,

wherein the system is operative to restrict access to the interior of an  
automated banking machine component,

wherein the system includes a database,

wherein the database includes data representative of images of  
individuals authorized access to the interior of the automated  
banking machine component,

wherein the system includes a camera,

wherein the camera is operative to capture an image of an  
individual,

wherein the system includes image recognition software,

wherein the software is operative to determine whether a captured image of an individual corresponds to an individual represented in the database,

wherein the system includes at least one processor,

wherein the at least one processor is operatively connected to the database and the camera,

wherein the at least one processor is operative to use the software.

45. The apparatus according to claim 1 and further including an automated banking machine, wherein the automated banking machine includes an automated banking machine component, wherein the component comprises a security container.
46. The apparatus according to claim 45 wherein the security container includes at least one currency cassette.
47. The apparatus according to claim 46 wherein the security container includes a lock control device, wherein access to the interior of the security container is controlled by the lock control device, and wherein the lock control device is operatively connected to the at least one processor.

48. The apparatus according to claim 47 wherein the at least one processor is operative to grant access to the interior of the security container responsive to a positive determination.
50. The apparatus according to claim 45 wherein the automated banking machine includes the security system.
51. The apparatus according to claim 1 wherein the software comprises facial recognition software, wherein the database includes data representative of facial images corresponding to respective individuals, wherein the software is operative to determine whether a captured facial image of an individual corresponds to an individual represented in the database, and wherein the at least one processor is operative to grant access to the interior of the component responsive to a positive determination.
52. The apparatus according to claim 51 wherein the at least one processor is operative to store a captured facial image in a file.
53. The apparatus according to claim 52 wherein the at least one processor is operative to store in the file the captured facial image along with a date and time of an attempted access to the interior of the component.

54. The apparatus according to claim 52 wherein the at least one processor is operative to store in the file the captured facial image along with a date and time of a granted access to the interior of the component.
55. The apparatus according to claim 54 wherein the at least one processor is operative to store a cassette serial number in the file.
56. The apparatus according to claim 1 and further including an automated banking machine component, wherein the component comprises a currency cassette.
57. The apparatus according to claim 56 wherein the cassette includes a lock control device, wherein access to the interior of the cassette is controlled by the lock control device, and wherein the lock control device is operatively connected to the at least one processor.
58. The apparatus according to claim 57 wherein the at least one processor is operative to grant access to the interior of the cassette responsive to a positive determination.
60. The apparatus according to claim 56 and further including a cassette work station, wherein the work station includes the security system.

61. A method including:
- (a) capturing an image of an individual with a camera;
  - (b) determining whether the captured image corresponds to an individual represented in a database;
  - (c) responsive to a positive determination in (b), granting a level of access to the interior of an automated banking machine component.
62. The method according to claim 61 wherein (a) includes capturing a facial image of an individual.
63. The method according to claim 62 wherein (b) includes using facial recognition software.
64. The method according to claim 63 wherein (c) includes granting a level of access to the interior of a security container of an automated banking machine, wherein the security container includes at least one currency cassette.
65. The method according to claim 64 wherein the level of access comprises direct access to the interior of the automated banking machine component, wherein (c) includes granting direct access to the security container.

67. The method according to claim 61 wherein at least one processor is operatively connected to the database and the camera, wherein (b) includes using the at least one processor to determine whether the captured image corresponds to an individual represented in the database.

68. The method according to claim 67 wherein the component comprises a currency cassette, wherein (c) includes granting a level of access to the interior of the currency cassette.

69. Apparatus including:

a security system,

wherein the security system is operative to restrict access to the interior of an automated teller machine ("ATM") currency container,

wherein the security system includes a database,

wherein the database includes data representative of facial images corresponding to respective individuals authorized to access the interior of the ATM currency container,

wherein the security system includes a camera,

wherein the camera is operative to capture an image of an individual,

wherein the security system includes facial recognition software,

wherein the software is operative to determine whether a captured facial image of an individual corresponds to an individual represented in the database,

wherein the security system includes at least one processor,

wherein the at least one processor is in operative connection with the database and the camera,

wherein the at least one processor is operative to use the software,

wherein the at least one processor is operative to grant access to the interior of the ATM currency container responsive to a positive determination.

70. A method comprising:

- (a) capturing image data corresponding to an image of an individual with a camera;
- (b) determining through operation of at least one processor whether the image data corresponds to data associated with an individual in a database;
- (c) responsive to a positive determination in (b), granting access to an interior area of an automated banking machine, wherein the interior area includes therein stored currency that is dispensed to machine users during financial transactions conducted through operation of the machine.



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## **EVIDENCE APPENDIX**

(None)

(x)

**RELATED PROCEEDINGS APPENDIX**

(None)